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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/709,743	11/13/2000	Michael Fred Enkler	031683.002575US	4706
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HUNTON & WILLIAMS LLP INTELLECTUAL PROPERTY DEPARTMENT 1900 K STREET, N.W. SUITE 1200 WASHINGTON, DC 20006-1109			EXAMINER SALVATORE, LYNDIA	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/709,743

Applicant(s)

ENKLER ET AL.

Examiner

Lynda M Salvatore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7, 8, 10-23 and 25-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 15, 16 and 31-36 is/are allowed.
- 6) ☐ Claim(s) 1-4, 7, 8, 10-23 and 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's request for continuing examination (RCE) filed 09/26/03 has been entered. Claims 1,10-12 and 17-22 have been amended, claims 5,6,9, and 24 have been canceled and new claims 25-36 have been added as requested. Applicant's amendment to claim 1 is found sufficient to overcome the 35 U.S.C. 112, first paragraph rejections of claims 1-19 as set forth in section 4 of the last Office Action. As such this rejection is withdrawn. Applicant's amendments to claim 1 are found sufficient to overcome the 35 U.S.C. 112, second paragraph rejection of claim 1 as set forth in section 7 of the last Office Action. As such, this rejection is withdrawn. Despite this advance, Applicant's amendments are not found to patently distinguish the claims over the prior art of record and Applicant's arguments with respect to claims 1,13,17-22 and 24 rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Alts, US 6,145,617 as set forth in section 9 of the last Office Action, claims 2,3,4-12,14 and 23 rejected under 35 USC 103(a) as being unpatentable over Alts, US 6,145,617 as set forth in section 11 of the last Office Action and claims 15-17 are rejected under 35 USC 103(a) as being unpatentable over Alts, US 6,145,617 as set forth in section 12 of the last Office Action have been fully considered, but are moot in view of a new ground (s) rejection set forth herein below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-4,7,8,10-14,17-23 and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alts, US 6,145,617 in view of Klose, US 4,917,750 and further in view of Mahnke et al., US 4,540,717.

Applicant has amended claim 1 to recite that the layers are "bonded to" rather than in planar contact with and argues that the primary reference of Alts fails to teach the use of a melamine resin foam material having a long-term thermal loadability of 200° C of three weeks. The Applicant further argues that the microporous stiffening layer taught by Alts, which is open-pored fiber layer or fiber foam composite layer differs from the flexible duroplastic melamine foam of the instant invention. These arguments are not found persuasive on the grounds that it is the position of the Examiner that Alts teaches all the essential features of the instant invention. To reiterate, the Alts patent is directed towards an ultra-light multifunctional sound-insulating kit (Title). Alts teaches the combination of a soft-elastic open-pored layer with a microporous fiber layer or fiber/foam composite layer arranged thereover to obtain sound absorption/insulation and heat insulation (Column 2, lines 43-50). One embodiment of the invention as shown in figure 10, may be used the engine compartment of a motor vehicle. Figure 10 shows a composite having on the motor face side 11, a oil and water protective fleece layer 28, which the examiner considers analogous to the first covering layer of the instant invention. Said fleece layer 28 is connected to a spring layer 13 made from foam or a duroplastic mixed fiber fleece, thermomoulded foam, or a PU molded foam having an approximate thickness of 15mm (Column 6, lines 21-35). The Examiner considers the spring layer of Alts analogous to the duroplastic melamine foam layer of the instant invention. In figure 10, said spring layer 13 is joined to a

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microporous stiffening layer 14, which may either take the form of highly pressed fiber material (Column 6, lines 13-15), or an open-pored fiber of a fiber/foam composite (Columns 3 and 4, lines 65-67 and line 1 respectively). The Examiner considers said microporous stiffening layer 14 analogous to the soundproofing layer of the instant invention. Figure 10, also illustrates the use of second protective fleece layer 28 joined to microporous stiffening layer 14. The Examiner considers the second protective fleece 28 analogous to the second covering layer of the instant invention. The assembly package of the invention may be adhered to the areal vehicle part 11 as shown in figure 10. Alts also illustrates in figure 9, the addition of an aluminum foil layer that is adhered to the porous spring layer for better sound insulation (Column 5, lines 40-50). All the layers of the composite taught by Alts may be connected to one another mechanically (stitched) or by adhesive (Column 2, lines 29-32).

Though, Alts does not specifically teach the materials used to form the first and second covering layer or the melamine foam, it is proper to look to the prior art for examples of suitable materials. As such, the patent issued to Klose teaches manufacturing an insulating non-woven web from mineral fiber. Said insulating webs provide improved heat transference, surface characteristics and moisture permeability.

Therefore, motivated by the desire to provide sufficient insulating properties a sound-insulating composite, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the first and second protective fleece layers in the sound-insulating composite of Alts with the insulating non-woven mineral fiber web taught by Klose.

With regard to the use of melamine foam, Alts does not specifically teach this material, however, the patent issued to Mahnke et al., teaches resilient foam based on a melamine-

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formaldehyde condensate. Said melamine foam exhibits low bulk density, low heat conductivity and is particularly suitable for use in heat and sound insulation applications (Abstract).

Therefore, motivated by the teachings of Mahnke et al., it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a melamine foam such as the one taught by Mahnke et al., in the sound-insulating composite of Alts.

With regard to the long-term thermal loadability of 200° C and the thermal conductivity of less than or equal to 0.035 W/mk of the melamine foam, it is the position of the Examiner that it is reasonable to presume said properties recited in claims 1, 26 and 27 are inherent to the melamine foam of Mahnke et al. and the non-woven mineral fiber web of Klose. Support for said presumption is found in the use of like materials (i.e., melamine foam and mineral fiber web) and the use of like processes (heat and sound insulation composites), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 495

Alternatively, the presently claimed property of long-term thermal loadability at 200°C of three weeks and thermal conductivity would obviously have been present once the Mahnke et al., and Klose product is provided. *In re Best*, 195 USPQ at 433

Claims 2 and 23 defines the duroplastic foam layer as having specific physical properties of long-term thermal stability and loadability. The Alts reference discloses an open-pored spring layer consisting of a duroplastic mixed fleece layer or thermomoulded foam of a PU moulded foam (Column 6, lines 32-35). It appears the product rendered obvious by the combined prior art inherently provides said stability and loadability features based upon the structure and chemistry taught.

Claim 3 specifies the natural and synthetic fibers as needed. Alts does not specifically state that the fleece is needed, however, it would have been obvious to one having skill in the art to needle the fabric to impart permeability and cohesion.

Claim 4 of the instant invention requires the natural and/or synthetic fibers are non-needed. It is the position of the Examiner that in absence of positive teaching to the contrary the fleece fabrics taught by Alts are non-needed.

Claim 7 further imposes structural and material limitations of the first and second covering layers. The Alts reference disclose a oil and water protective fleece layer the side of the motor face (Column 6, lines 10-15) and a carrier layer defined as highly pressed fiber which serves to provide stability when adhered to the areal vehicle part (Column 6, lines 25-27 and 35-37). Thin needle-punched and spunbonded non-wovens are very well known processing techniques used to produce strengthened textiles. Therefore, it would be obvious have a fiber layer covering material for use in an engine compartment processed using those methods

Claims 8, 10-12, and 14 recites specific volumetric weight ranges to further limit the claimed subject matter. Since the prior art discloses the general conditions of the applicants claimed invention, discovering the optimum volumetric ranges would only involve routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Allowable Subject Matter

4. The following is a statement of reasons for the indication of allowable subject matter: Claims 15,16 and 31-36.

Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 15 and 16 disclose the duroplastic foam layer and the soundproofing layer as having a pattern of convex bulges to form a grid. It is the position of the Examiner that shaping does not contribute to the heat or sound insulating properties of the claimed invention. However, in the absence of a positive teaching to a foam layer and soundproofing layer having a pattern of convex bulges to form a grid, said claims are allowable over the combination of prior art. Presently no motivation exists to combine reference to form an obvious type rejection.

Claims 31-36 are allowable of the prior art of record. Specifically, the combination of prior art fails to teach or fairly suggest a heat-insulating and soundproofing lining comprising in the following order a first covering layer bonded to a duroplastic foam layer bonded to a soundproofing layer, wherein the soundproofing layer further comprises a plastic foam layer and a particle composite foam layer, and a second covering layer bonded to said composite soundproofing layer. Presently, no motivation exists to combine references and an updated art search did not produce any new substantial art for which to base a rejection.

Conclusion


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

December 9, 2003

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TERREL MORRIS
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